

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 82.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-016871**Date Inspected:** 14-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1330**Contractor:** Westmont Industries**Location:** Santa Fe Springs, CA.**CWI Name:** R. Rodriguez, R. Dominguez**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Travelers**Summary of Items Observed:**

The Quality Assurance Inspector Sean Vance arrived on site at Westmont Industries (WMI) in Santa Fe Springs, CA, to randomly observe the in process welding of the Travelers. The QA Inspector arrived on site to randomly observe the WMI Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

Traveler E2/E3-EB

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Eutimo Lopez (WID # 3035), continuing to perform Flux Core Arc Welding (FCAW) activities on the E2/E3-EB Traveler frames. The QA Inspector observed Mr. Lopez performing the FCAW on previously fit and tack welded Tube Steel (TS) on the Frame Assembly, identified as A217, per the approved shop drawings. The QA Inspector observed that Mr. Lopez was utilizing a Miller brand machine and wire feeder, to perform the FCAW and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal.

The QA Inspector observed Westmont Industries (WMI), production welder Daniel Grayum (WID # 3049), continuing to perform Flux Core Arc Welding (FCAW) activities on the E2/E3-EB Traveler frames. The QA Inspector observed Mr. Grayum performing the FCAW on previously fit and tack welded Tube Steel (TS) on the Frame Assembly, identified as A230, per the approved shop drawings. The QA Inspector observed that Mr. Grayum was continuing to utilize a Miller brand machine and wire feeder, to perform the FCAW and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal and that Mr. Grayum was performing the FCAW fillet and Flare Groove welds. The QA Inspector observed that near the end of the shift that Mr. Grayum was completing the last of the FCAW fillet and Flare Groove welds for this frame assembly.

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The QA Inspector observed Westmont Industries (WMI), production welder Larry Swanson (WID # 3058), continuing to perform Flux Core Arc Welding (FCAW) tacking activities, on the E2/E3-EB Traveler frames. The QA Inspector observed Mr. Swanson performing the FCAW tacking on previously fit Tube Steel (TS) material, on the Frame Assembly, identified as # A235. The QA Inspector observed that Mr. Swanson was utilizing a Miller brand machine and wire feeder, to perform the FCAW Tacking and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal.

The QA Inspector observed Westmont Industries (WMI), production helper Raymundo Anaya continuing to perform fitting activities on the E2/E3-EB Traveler frames. The QA Inspector observed Mr. Anaya placing previously cut to length Tube Steel (TS) on a flat steel fabrication table and Mr. Anaya explained that he was placing and piecing together the TS material, per the piece marks which were previously marked on the TS material, in accordance to the approved shop drawings. The QA Inspector observed that copies of the shop drawings were placed near the work location, for the purpose of fabricating the Traveler Frame assemblies. The QA Inspector observed Mr. Anaya piecing together the TS material utilizing multiple C-Clamps. Once the C-Clamps were utilized to clamps the material, the QA Inspector observed Mr. Anaya measuring the dimensions and then referring to the drawings for clarification of the dimensions. Mr. Anaya explained that once all of the TS material is clamped together for the particular frame assembly, that WMI production Welder Juan Mora (WID # 3121) will be tack welding the fit TS material.

The QA Inspector observed that the above mentioned welders were utilizing a hand held mechanical grinder, with an attached wire wheel and a utility scraper, to perform the in-process and final cleaning of the fillet and flare groove welds. The QA Inspector observed that each weld joint fit up was previously inspected by WMI QC Personnel and had an identifying # assigned to the joint, prior to the FCAW commencing.

The QA Inspector observed Smith Emery QC Inspector Ruben Dominguez performing Visual and Magnetic Particle Testing (VT/MT) on previously completed Frame Assemblies, for the E2/E3-EB Traveler. QC Inspector Dominguez explained that he was performing the testing in accordance to AWS D1.1 2002 and the approved WMI MT Procedure SE-MT-CT.D1.1-105, Rev. # 1. QC Inspector Dominguez explained that the testing was being performed on the previously completed frame assemblies and the QA Inspector observed that the frame assemblies were clearly identified on the frame material. The QA Inspector observed that a yellow paint stick marker had been utilized to identify each weld joint and was previously assigned a number. The QA Inspector noted that WMI QCM Rick Rodriguez performs this task. The QA Inspector was later informed by QC Inspector Dominguez that no rejectable indications were found after testing and that an applicable Visual and Magnetic Testing report will be completed, per the contract requirements.

Traveler Test Rack

On this date, the QA Inspector observed Westmont Industries (WMI), production welder Autoro Montes (WID # 3151) performing Flux Core Arc Welding (FCAW) tacking and grinding activities for the Traveler Test Rack. The QA Inspector observed that Mr. Montes was utilizing a Miller brand machine and wire feeder, to perform the FCAW tacking and that Ultracore 71A85 (.045") diameter wire was being utilized, for the filler metal. The QA Inspector observed that the tacking activities were being performed on piece mark identified as "A19" to piece mark identified as "B", reference drawing # WMI-TTR-7.

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Trolley Test Stand

The QA Inspector observed WMI production welder Mr. Jose Rodriguez (WID # 3031), performing welding and tacking activities on the Trolley Test Stand material. The QA Inspector observed that the welding and tacking activities were being performed on the Rail X and Y flanges and web plates splices. The QA Inspector observed that the fit up for these splices, appeared to be a 45 degree double bevel groove Complete Joint Penetration (CJP) and appeared to be in compliance with the approved shop drawings. The Welding Procedure Specification (WPS) being utilized by Mr. Rodriguez appeared to be approved procedure # W102 and GMAW appeared to be the welding process.

The QA Inspector observed that the above mentioned welders appeared to utilize spray cans of “Anti Spatter”, prior to commencing the welding activities and this spray application appeared to reduce the amount of weld spatter on or near the weld joints. The QA Inspector observed that Smith-Emery QC Inspector Ruben Dominguez was present, during the above mentioned welding and tacking activities and Mr. Dominguez explained that approved Welding Procedure Specifications (WPS’s) were being utilized. Mr. Dominguez explained that the in-process welding parameters were randomly verified including voltage, amperage, pre-heat and travel speed. Mr. Dominguez explained that the parameters were in compliance to the applicable WPS and the QA Inspector randomly verified these parameters and concurred with QC Inspector Dominguez.

The QA Inspector observed that the above mentioned activities continued throughout the shift and appeared to be in compliance with the contract requirements.

See attached picture below.



Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385-5910, who represents the Office of Structural Materials for your project.

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Inspected By:	Vance,Sean	Quality Assurance Inspector
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Reviewed By:	Edmondson,Fred	QA Reviewer
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